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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,849	04/30/2001	Detlef Weigel	SALKINS.026DV1	3202

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EXAMINER

MEHTA, ASHWIN D

ART UNIT	PAPER NUMBER
1638	12

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/845,849	WEIGEL ET AL.	
	Examiner	Art Unit	
	Ashwin Mehta	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 April 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,6,8-21,23,24 and 35-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1, 8-17, 19, 21, 23, 24, 35 and 37-39 is/are rejected.
- 7) Claim(s) 6,18,20 and 36 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 April 2001 is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. The objection to the statement of priority on page 1 of the specification is withdrawn, in light of its amendment.
3. The objection to the specification for containing markings on pages 7 and 8 is withdrawn, in light of the amendments removing the markings.
4. The objections to claims 2-5, 18, and 20 are withdrawn, in light of the claim amendments or cancellations.
5. The rejections of claims 1-18, 21, 28, 29, 33, and 34 under 35 U.S.C. 112, 2nd paragraph, are withdrawn in light of the claim amendments or cancellations.
6. The rejection of claim 33 under 35 U.S.C. 102(a) is withdrawn in light of its cancellation.

Specification

7. The specification remains objected to for failing to comply with the sequence rules of 37 CFR 1.821-1.825, for the reasons of record stated in the Office action mailed 19 November 2002 under item 3.

In the paper submitted 18 April 2003, Applicants indicate that the specification has been amended as suggested (response, page 7, 3rd full paragraph). However, the amendment to the brief description of Figure 2 does not recite a sequence identifier for the amino acid sequence that appears in that figure.

8. The specification is objected to, because several sequences in the brief description of Figure 3 are identified by incorrect sequence identifiers. The amendment to the brief description of Figure 3 (in the paper submitted 18 April 2003) states that, in Fig. 3A, the sequence of At FT is SEQ ID NO: 4, At E12A11 is SEQ ID NO: 6, Rn HCNP is SEQ ID NO: 7, and in Fig. 3C, a peptide sequence of At FT is SEQ ID NO: 8 and a peptide sequence of Rn HNCP is SEQ ID NO: 12. However, a comparison of these sequences in Figure 3 with the sequence listing shows that the references to these sequence identifiers in the brief description of Figure 3 are incorrect.

Further, page 41, line 18, of the specification erroneously indicates that SEQ ID NO: 5 is a nucleotide sequence. The sequence listing shows that SEQ ID NO: 5 is an amino acid sequence. The amended description to Figure 3A also indicates that SEQ ID NO: 5 is an amino acid sequence. Applicants should review the specification for other such errors.

Correction/clarification is required. New matter must be avoided.

Claim Objections

9. Claims 6, 18, 20, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

10. Claims 1, 8-17, 19, 21, 23, and 24 remain and new claims 35 and 37-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, for the reasons of record stated in the Office action mailed 19 November 2002 under item 7. Applicants traverse the rejection in the paper submitted 18 April 2003. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that actual experimental evidence to illustrate their discovery is in Example 3 of the specification (response, paragraph bridging pages 9-10). Example 3 shows that transgenic Arabidopsis plants expressing SEQ ID NO: 3 flowered late. However, Example 3 does not describe any other antisense sequence of SEQ ID NO: 1 that produces the same effect when expressed in transgenic plants. The specification does not describe any sequences that differ from SEQ ID NO: 3 that will delay flowering when expressed in transgenic plants.

Applicants argue that the specification describes several methods for inhibiting the production of a gene using antisense technology (response, paragraph bridging pages 9-10). However, a method of making a product does not describe the product itself. See Fiers 25 USPQ 2d (CAFC

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1993) at 1606, which states that “[a]n adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself”.

11. Claims 1, 8-17, 19, 21, 23, 24 remain and new claims 35 and 37-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, for the reasons of record stated in the Office action mailed 19 November 2002 under item 8. Applicants traverse the rejection in the paper submitted 18 April 2003. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that one of ordinary skill in the art would not be required to engage in undue experimentation to make transgenic plants having delayed flowering and comprising an antisense molecule that interfered with FT gene expression, and that Example 3 teaches how to make and use antisense molecules that inhibit the FT gene to produce plants with delayed flowering (response, page 11, 2nd full paragraph). However, as discussed above, Example 3 only teaches the production of a single transgenic plant expressing an antisense sequence, which is the sequence set forth in SEQ ID NO: 3. Other sequences that can produce the desired phenotype are not taught. As discussed in the last Office action, Branch discusses how the use of antisense sequences to block the expression of specific genes have been hampered by effects on unintended targets, and how target RNAs often create physical barriers that render binding sites inaccessible. The specification does not teach other antisense sequences that can be used with the claimed invention that would avoid these undesirable effects.

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Summary

12. Claims 1, 8-17, 19, 21, 23, 24, 35 and 37-39 are rejected. Claims 6, 18, 20, and 36 are objected.

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 703-306-4540. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 703-306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular

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communications and 703-872-9307 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

June 18, 2003


ASHWIN D. MEHTA, PH.D
PATENT EXAMINER